APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,378	09/28/2000	Michael de La Chapelle	7784000141	8279

7590 10/01/2004	EXAMINER
Harness Dickey & Pierce P L C P O Box 828 Bloomfield Hills, MI 48303	PEREZ, ANGELICA

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2684	6

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/672,378	Applicant(s) LA CHAPELLE, MICHAEL DE	
	Examiner Angelica M. Perez	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2000*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

Claims 1-10, 12-18 and 27-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Garrison (Garrison et al.; EP 0,805,568 A1) in view of Polivka

(Polivka et al.; US Patent No.: 5,463,656 A).

Regarding claim 1, Garrison teaches of a method for controlling a power spectral

density (PSD) of a plurality of radio frequency (RF) signals (column 3, lines 1-7; e.g.,

"provide a power control subsystem for a satellite based telecommunications system")

output from a corresponding plurality of RF systems disposed on a corresponding

plurality of independent mobile platforms operating within a given geographical

coverage region (column 3, lines 1-7; e.g., "with respect to corresponding coverage

satellites"), where the RF systems are transmitting RF signals simultaneously to a

shared space-based RF transponder (column 4, line 49-51; e.g., " satellite 30 relays

RF signals along channels..." where the function of a transponder is to relay signals),

to thus maintain an aggregate PSD of the RF signals within a predetermined

regulatory PSD limit (column 3, lines 8-11; e.g., "to ensure that the earth stations,

satellites and user terminals operate within federally mandated power flux density

limits"), the method comprising the steps of: determining the PSD of the RF signals to

be transmitted by each the RF system of each the mobile platform prior to the

transmission of the RF signals from each the RIF system (column 5, lines 19-24; e.g.,

"composite RF signals); summing he PSD of the RIF signals from each the RF system

to determine the aggregate PSD (column 5, lines 19-24; where the modems are

present in every unit; also, they are combined as a composite); comparing the

aggregate PSD to the predetermined regulatory PSD limit (column 9, lines 23-59 and

column 10, line 1); and authorizing transmissions by each of the RF systems only if the

aggregate PSD is within the regulatory limit (column 7, lines 14-21; where it is inherent

to authorize transmissions when the limit of the systems are within the regulatory

limit).

Garrison does not specifically teach of the method applied to mobile platforms.

In related art, concerning a system for conducting video communications over

satellite communication aircraft having physically compact, phase array antenna,

Palivka teaches of the method applied mobile platforms (figure 1, item 12).

It would have been obvious to a one of ordinary skill in the art at the time the

invention was made to combine Garrison's method with Polivka's mobile platforms in

order to provide broadcast quality video to (or from) an aircraft via a satellite

communications link, as taught by Polivka.

Regarding claim 2, Garrison in view of Polivka teaches all the limitations

according to claim 1. Polivka further teaches of a central, ground-based controller

performing the method described in claim 1 (figure 1, item 11).

Regarding claim 3, Garrison in view of Polivka teaches all the limitations

according to claim 2. Polivka further teaches the step of requiring each of the mobile

systems to transmit a request for authorization to transmit before transmitting said RF

signals from its associated said RF system (column 7, lines 22-25; where the

allocation corresponds to authorization that complies with the FCC).

Regarding claim 4, Garrison in view of Polivka teaches all the limitations

according to claim 1. Polivka further teaches the step of causing the mobile systems to

transmit a request for authorization to transmit at a particular transmit power (column

8, lines 8-12; where the request for a change, requires authorization).

Regarding claim 5, Garrison in view of Polivka teaches all the limitations

according to claim 4. Polivka further teaches the step of making the transmit power

proportional to a data rate at which the RF signal is transmitted (column 2, lines 25-

36; where compression provide for a proportional data rate of transmission).

Regarding claim 6, Garrison in view of Polivka teaches all the limitations

according to claim 5. Polivka further teaches the transmit data rate equal to a demand

for data rate on the mobile platform (column 8, lines 8-12; where the data rate

requested is inherently equal to the data rate requested).

Regarding claim 7, Garrison in view of Polivka teaches all the limitations

according to claim 1. Polivka further teaches the step of: causing the mobile systems

to transmit requests for authorization to transmit spontaneously, at any time,

according to demand for service on the mobile platform (column 11, lines 12-22;

where request are inherently done at any time).

Regarding claim 8, Garrison in view of Polivka teaches all the limitations

according to claim 2. Garrison further teaches the steps of: informing the central

controller when each the mobile system decides to decrease it's transmit power; and

where the central controller subtracts the corresponding PSD reduction from the

aggregate PSD (column 6, lines 53-56; where the power is adjusted according to

demand).

Regarding claim 9, Garrison in view of Polivka teaches all the limitations

according to claim 8. Polivka further teaches   where the decrease in transmit power

corresponds to a reduction in a transmit data rate of the RF signal (column 6, lines

53-56; where the power is adjusted according to demand; also, as transmitted power

decreases, so does data rate).

Regarding claim 10, Garrison in view of Polivka teaches all the limitations

according to claim 9. Polivka further teaches where the reduction in the transmit data

rate corresponds to a reduction in data rate demand on the mobile platform (column

6, lines 53-56; where the power is adjusted according to demand; also, reduction of

transmitted data rate causes a data rate demand reduction).

Regarding claim 12, Garrison in view of Polivka teaches all the limitations

according to claim 1. Garrison further teaches The method of claim 2, further using

the central, ground based controller to cause to reduce or turn off the transmit power

of any one of the mobile systems at any time after previously giving authorization to

transmit to the mobile systems if the aggregate PSD approaches within a

predetermined margin of the regulatory PSD limit (column 3 lines 21-25).

Regarding claim 13, Garrison in view of Polivka teaches all the limitations

according to claim 1. Polivka further teaches The method of claim 1, where the step of

determining said PSD of said RF signal to be transmitted by each the mobile systems

(column 5, lines 19-24; e.g., "composite RF signals) comprises the steps of:

determining a location of the mobile platform. determining a type of antenna being

used by the mobile platform to transmit the RF signals from theRF system; and

considering a requested transmit power of the RF system.Polivka further teaches of

determining a location of the space-based RF transponder (column 8, lines 34-42;

e.g., "as determined by knowledge of the satellite position..."); determining a location

of the space-based RF transponder; determining a heading and attitude of the mobile

platform;   (column 8, lines 34-42; e.g., "as determined by knowledge of the satellite

position..."; where heading and altitude are variables of the location); determining a

type of antenna being used by the mobile platform to transmit the RF signals from the

RF system 9figure 1 item 35); and considering a requested transmit power of the RF

system (column 8, lines 9-13; where the request determines the kind of antenna to be

used).

Regarding claim 14, Garrison in view of Polivka teaches all the limitations

according to claim 13. Polivka further teaches of reporting the location and attitude to

the central controller during the request for authorization to transmit, and the central

controller using the location and attitude to calculate the PSD contribution (column 8,

lines 38-42).

Regarding claim 15, Garrison in view of Polivka teaches all the limitations

according to claim 10. Polivka further teaches where said location and attitude is

reported to the central controller on a predetermined time schedule so that the mobile

system PSD contribution is monitored as the mobile system moves within the coverage

region (column 8, lines 38-42).

Regarding claim 16, Garrison in view of Polivka teaches all the limitations

according to claim 2. Polivka further teaches of causing each the RF system to spread

its said RF signal in frequency over a predetermined bandwidth (column 2, lines 5-12).

Regarding claim 17, Garrison in view of Polivka teaches all the limitations

according to claim 16 Polivka further teaches where the step of causing each the RF

system to spread its RF signal comprises the step of using direct sequence spread

spectrum frequency spreading, and further comprising the step of assigning each of the

mobile systems a unique pseudo noise spreading code (column 2, lines 5-12; where

spread spectrum waveform processing performs the allocation of unique spreading

codes).

Regarding claim 18, Garrison in view of Polivka teaches all the limitations

according to claim 17. Polivka further teaches of using the central controller to assign a

unique one of the pseudo noise spreading codes to each of the mobile systems (figure

1, item 11).

Regarding claim 27, Garrison teaches of a method for managing radio frequency (RF)

transmissions from RF systems of a (column 3, lines 1-7; e.g., "provide a power control

subsystem for a satellite based telecommunications system") plurality of mobile

platforms operating within a given geographical coverage region (column 3, lines 1-7;

e.g., "with respect to corresponding coverage satellites"), where the RF systems are

transmitting RF signals simultaneously to a shared space-based RF transponder

(column 4, line 49-51; e.g., " satellite 30 relays RF signals along channels..." where the

function of a transponder is to relay signals), to thus maintain an aggregate PSD of the

RF signals within a predetermined regulatory PSD limit (column 3, lines 8-11; e.g., "to

ensure that the earth stations, satellites and user terminals operate within federally

mandated power flux density limits") Garrison further teaches of using the central

controller to authorize said first mobile platform to use said transmit power to transmit

said subsequent information provided that said aggregate PSD value does not exceed

said regulatory PSD limit (column 7, lines 26-39; where the comparison is updated in

order to stay within the authorized limit. Also, it is inherent to seek for the authorized

limit when transmitting information); using a central controller to receive the request for

authorization to transmit signal and to add the transmit power to an aggregate PSD

value (column 6, lines 46-56; where the authorization is denied if the limit is reached);

causing the first one of the mobile platforms to periodically provide

information concerning a location of the mobile platform to the central controller

(column 7, lines 39-43; e.g., "periodically updates the satellite power allocations...");

and using the central controller to terminate RF transmissions from the first mobile

platform at any time if the regulatory PSD limit is expected to be exceeded (column 7,
lines 14-21; where the exceeding limit, systems inherently drops the call or hands it
over).

Garrison does not specifically teaches the step of causing a first one of the
mobile platforms to transmit a request for authorization to transmit signal indicating a
transmit power which said first mobile platform wishes to use to transmit subsequent
information an RF transmitter on to board the first mobile platform.
In related art, concerning a system for conducting video communications
In related art, concerning a system for conducting video communications over satellite
communication aircraft having physically compact, phase array antenna, Palivka
teaches the step of causing a first one of the mobile platforms to transmit a request for
authorization to transmit signal indicating a transmit power which said first mobile
platform wishes to use to transmit subsequent information an RF transmitter on to
board the first mobile platform (column 8, lines 8-12; where the request for a change,
requires authorization).

It would have been obvious to a one of ordinary skill in the art at the time the
invention was made to combine Garrison's method with Polivka's mobile platforms in
order to provide broadcast quality video to (or from) an aircraft via a satellite
communications link, as taught by Polivka.

Regarding claim 28, Garrison in view of Polivka teaches all the limitations
according to claim 27. Polivka further teaches of causing the first mobile platform to
inform the central controller whenever the transmit power is being reduced, where the

central controller reduces the aggregate PSD in accordance with the reduced transmit power (column 6, lines 53-56; where the power is adjusted according to demand; also, as transmitted power decreases, so does data rate).

Regarding claim 29, Garrison in view of Polivka teaches all the limitations according to claim 27. Polivka further teaches of spreading the frequency of signals transmitted by the RF transmitter of the first mobile system (figure 1, item 11; column 2, lines 5-12; where spread spectrum waveform processing performs the allocation of unique spreading codes).

Regarding claim 30 Garrison in view of Polivka teaches all the limitations according to claim 29. Polivka further teaches of using the central controller to assign a unique spreading code to the first mobile system (figure 1, item 11; column 2, lines 5-12; where spread spectrum waveform processing performs the allocation of unique spreading codes).

2.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrison in view of Polivka, and further in view of Garner (Garner, William B.; US Patent No.: 6,058,307).

Regarding claim 11, Garrison in view of Polivka teaches all the limitations according to claim 2.

Garrison in view of Polivka does not specifically teach of using the central, ground-based controller to poll each of the RF systems that are not currently transmitting for the requests for authorization.

In related art, concerning priority and preemption service system for satellite
related communication using central controller, Garner teaches of using the central,
ground-based controller to poll each of the RF systems that are not currently
transmitting for the requests for authorization (column 23, lines 5-14).

It would have been obvious to a one of ordinary skill in the art at the time the
invention was made to combine Garrison's method and Polivka's mobile platforms with
Garner's polling idle systems in order to ensure a robust system, as taught by Garner.

3.   Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over
Garrison in view of Polivka, and further in view of Sachdev (Sachdev, Dharmendra
Kummar; US Patent No.: 6,574,338 B1).

Regarding claim 31 Garrison in view of Polivka teaches all the limitations
according to claim 27.

Garrison in view of Polivka does not specifically teach of causing each of the
mobile systems to transmit the request for authorization to transmit, at any time, as
needed based on real time demands for transmitting service.

In related art concerning an information delivery system and method, Sachdev
teaches of the mobile systems to transmit the request for authorization to transmit, at
any time, as needed based on real time demands for transmitting service (column 2,
lines 36-39).

It would have been obvious to a one of ordinary skill in the art at the time the
invention was made to combine Garrison's method and Polivka's mobile platforms with

Sachdev real-time demand transmission in order for users to select from a variety of

programs offered, as taught by Sachdev.

4.   Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Garrison in view of Polivka, and further in view of Mitchell (Mitchell, James P.; US

Patent No.: 6,741,841 B1).

Regarding claim 19, Garrison teaches of a method for controlling a power spectral

density (PSD) of a plurality of radio frequency (RF) signals (column 3, lines 1-7; e.g.,

"provide a power control subsystem for a satellite based telecommunications system")

output from a corresponding plurality of RF systems disposed on a corresponding

plurality of independent mobile platforms operating within a given geographical

coverage region (column 3, lines 1-7; e.g., "with respect to corresponding coverage

satellites"), where the RF systems are transmitting RF signals simultaneously to a

shared space-based RF transponder (column 4, line 49-51; e.g., " satellite 30 relays RF

signals along channels..." where the function of a transponder is to relay signals), to

thus maintain an aggregate PSD of the RF signals within a predetermined regulatory

PSD limit (column 3, lines 8-11; e.g., "to ensure that the earth stations, satellites and

user terminals operate within federally mandated power flux density limits"), the method

comprising the steps of determining the PSD of the RF signals to be transmitted by

each the RF system of each the mobile platform prior to the transmission of the RF

signals from each the RIF system (column 5, lines 19-24; e.g., "composite RF signals);

summing he PSD of the RIF signals from each the RF system to determine the

aggregate PSD (column 5, lines 19-24; where the modems are present in every unit;

also, they are combined as a composite); comparing the aggregate PSD to the

predetermined regulatory PSD limit (column 9, lines 23-59 and column 10, line 1); and

authorizing transmissions by each of the RF systems only if the aggregate PSD is within

the regulatory limit (column 7, lines 14-21; where it is inherent to authorize

transmissions when the limit of the systems are within the regulatory limit). Garrison

further teaches to determining a type of antenna disposed on each mobile platform

which is transmitting the RF signals; determining a transmit power of the RF system

(column 7, lines 39-43; e.g., "satellite power allocations...earth stations concerning

loads"); using a central controller to determine, from the information of steps through,

what the aggregate PSD is for the RF signals being transmitted from all of the RF

systems; (column 5, lines 19-24; where the modems are present in every unit; also, they

are combined as a composite); comparing the aggregate PSD with the predetermined

regulatory PSD limit (column 7, lines 26-39; where the comparison is updated in order

to stay within the authorized limit); and using the central controller to control

transmissions from each of the mobile platforms to ensure that the aggregate PSD of

the RF signals does not exceed the regulatory PSD limit (column 3, lines 8-11; e.g., "to

ensure that the earth stations, satellites and user terminals operate within federally

mandated power flux density limits".

Garrison does not specifically teach of the method applied to mobile platforms.

In related art, concerning a system for conducting video communications over

satellite communication aircraft having physically compact, phase array antenna,

Polivka teaches of the method applied mobile platforms (figure 1, item 12). Polivka

further teaches of determining a location of the space-based RF transponder (column

8, lines 34-42; e.g., "as determined by knowledge of the satellite position...");

spreading the RF signals from each of the RF systems over a predetermined

bandwidth (column 2, lines 5-11; e.g., "spread spectrum waveform processing");

It would have been obvious to a one of ordinary skill in the art at the time the

invention was made to combine Garrison's method with Polivka's mobile platforms in

order to provide broadcast quality video to (or from) an aircraft via a satellite

communications link, as taught by Polivka.

Garrison in view of Polivka does not specifically teach of determining a location

of each the mobile platform.

In related art, concerning a dual receiver for an on-board entertainment system,

Mitchell teaches of determining a location of each the mobile platform.

(column 4, lines 29-32; where the location of the platform must be known in order to

send the data).

It would have been obvious to a one of ordinary skill in the art at the time the

invention was made to combine Garrison's method and Polivka's mobile platforms with

Mitchell's location of the platform in order to send the data to the requesting location,

as taught by Mitchell.

Regarding claim 20, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Polivka further teaches of causing each the

mobile platform to transmit a request for authorization to transmit to the space-based

RF transponder prior to transmitting the RF signals from its associated said RIF

system, the request for authorization comprising information relating to a data rate at

which the RF system will be transmitting (column 11, lines 12-22; where request are

inherently done at any time).

Regarding claim 21, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Garrison further teaches of using the central

controller to receive said request for authorization and to authorize transmission by the

requesting mobile platform if the aggregate PSD will remain approximately below the

regulatory PSD limit (column 7, lines 14-21; where it is inherent to authorize

transmissions when the limit of the systems are within the regulatory limit).

Regarding claim 22, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Polivka further teaches of causing the central

controller to instruct at least one of the mobile platforms to reduce a rate of data

transmission of its the RF signals, while the one mobile platform's the RF system is

transmitting, if the central controller detects that the regulatory PSD limit is to be

exceeded (column 6, lines 53-56; where the power is adjusted according to demand;

also, as transmitted power decreases, so does data rate).

Regarding claim 23, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Polivka further teaches of causing each the RF

system to spread its the RF signal over a predetermined bandwidth and assigning a

spreading code to each the RIF system (figure 1, item 11; column 2, lines 5-12; where

spread spectrum waveform processing performs the allocation of unique spreading

codes).

Regarding claim 24, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Polivka further teaches of requiring each the

mobile system to transmit a request for authorization to transmit at a particular

transmit power (column 8, lines 8-12; where the request for a change, requires

authorization).

Regarding claim 25, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 19. Polivka further teaches of requiring each of the

mobile systems to transmit a signal to the central controller to inform the central

controller when it will be decreasing the transmit power of its associated the RF

system (column 6, lines 53-56; where the power is adjusted according to demand).

Regarding claim 26, Garrison in view of Polivka, and further in view of Mitchell

teaches all the limitations of claim 26. Polivka further teaches of using the central

controller to adjust the aggregate PSD to reflect additional PSD capacity gained

whenever anyone of the mobile systems informs the central controller that it has

decreased its transmit power (column 8, lines 38-42).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

Angelica Perez
(Examiner)

EDAN ORGAD
PATENT EXAMINER/TELECOMM.

Art Unit 2684

September 20, 2004